## Historic, archived document

Do not assume content reflects current scientific knowledge, policies, or practices.

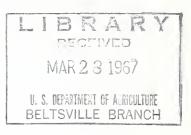


81,9 83 -FCR, 34

## REVIEW OF 1966 PRICE DEVELOPMENTS IN THE FOREIGN AGRICULTURAL TRADE OF THE UNITED STATES

by

Hans G. Hirsch



Reprinted from
FOREIGN AGRICULTURAL TRADE

OF THE
UNITED STATES
February 1967

Trade Statistics and Analysis Branch
Foreign Development and Trade Division
Economic Research Service
U.S. Department of Agriculture





## SPECIAL in this issue

REVIEW OF 1966 PRICE DEVELOPMENTS IN THE FOREIGN AGRICULTURAL TRADE OF THE UNITED STATES

bу

Hans G. Hirsch 1/

Price movements commanded more than usual interest in 1966 -- and for good reason. During the year ended September 1966, the Consumer Price Index averaged 2.6 percent higher than the year before. The Wholesale Price Index was up 3.4 percent, the Farm Parity Index (i.e., the Index of Prices Paid by Farmers, Interest, Taxes and Wage Rates) was up 3.6 percent, and the Index of Prices Received by Farmers was 8.2 percent above a year earlier.

By contrast, the index of the prices (unit values 2/) of 21 leading U.S. agricultural trade commodities showed virtually no change from the preceding year. The aggregate price increase of these commodities averaged only 0.1 percent (table 4). This price stability -- on the average -- is also reflected by Reuter's Index. During the year ended September 1966, it averaged 0.3 percent below a year earlier, a minimal change. Similarly, an index of agricultural export prices, based on United Nations export price data, increased by only 0.5 percent. The fact that two of the trade price indexes here discussed rose and one declined is immaterial. What counts is the minute change in these indexes regardless of the direction of the change.

Contrary to the stability of the three agricultural trade price indexes so far mentioned, the Dow-Jones Spot Price Index averaged 3.2 percent above a year earlier and was thus more in line with the U.S. Wholesale Price Index than with the agricultural trade price indexes. The Reuter's and Dow-Jones Indexes, by and large, tend to confirm one another. Among the reasons for their unusual inconsistency are: (1) Reuter's includes the world free-market sugar price which has been severely depressed, whereas Dow-Jones prices raw sugar in the U.S. market where it has moved up with the Farm Parity Index;

<sup>1/</sup> Agricultural Economist, Trade Statistics and Analysis Branch, Foreign Development and Trade Division, Economic Research Service.

<sup>2/</sup> Value divided by quantity. The terms price and unit value are used interchangeably here. Conceptually they differ. A unit value may change as a result of a change in the product mix, while prices, at the same time, remain stable. For instance, non-durum wheat and durum wheat prices may not change; but if more durum wheat is exported in one period than in the preceding period, the unit value of wheat exports rises, because durum wheat, the higher-priced product in the "mix" which is wheat, has become relatively more important.

Table 4.--Unit values of 21 leading U.S. agricultural trade commodities, years and quarters, ended September 30, 1966 and 1965  $\frac{1}{1}$ 

•	CHILL	C Value, year	שוומשת		value, quarter	30
Commodity						
	1966	1965	1965	1966	1965	1966
	••			••		
	: Cents	Cents	Percent	Cents	Cents	Percent
commodities	••			••		
WheatBu.	: 165.1	168.5	0.86	: 173.7	162.2	107.1
Wheat flourCwt.	: 407.5	401.0	101.6	: 420.2	398.3	105.5
CornBu.	: 140.2	140.7	9.66	: 146.5	140.3	104.4
Sorghum grainBu.	: 121.5	121.7	8.66	: 121.5	118.9	102.2
	: 290.2	292.9	99.1	: 334.9		112.5
Soybean oilLb.	: 14.3	13.5	105.9	: 14.5		109.0
Protein meal 2/Lb.	: 4.0	3.8	105.3	: 4.5		115.4
CottonIb.	: 24.9	26.1	95.4	: 23.9		91.2
	9.68 :	83.6	107.2	8.06.		106.8
Rice, milled:Lb.	: 7.3	7.1	102.8	: 7.5	7.1	105.6
	8.5	8.9	95.5	: 8.2		92.1
Nonfat, dry milkLb.	: 15.7	12.4	126.6	: 14.4	13.6	105.9
Average, i.e., index number $\frac{3}{}$ /			100.2			105.0
Im ort commodities :	••			• •		
	: 37.2	39.0	95.4	: 36.1		99.2
SugarLb.	: 5.9	5.6	105.4	: 6.0		103.4
	: 37.8	33.0	114.5	:, 39.1	32.9	118.8
RubberLb.	: 18.1	18.8	96.3	: 19.1		107.9
Wool 5/	: 59.5	62.1	95.8	: 57.7		101.4
Cocoa beansLb.	: 15.2	17.0	4.68	: 21.2		152.5
TobaccoLb.	: 72.1	69.2	104.2	: 70.0		0.66
BananasLb.	: 4.8	9.4	104.3	: 4.8		102.1
HamsLb.	. 75.0	65.6	114.3	: 77.0	4.99	116.0
Average, i.e., index number $\frac{3}{}$ /			6.99			105.6
All above commodities Average, i.e., index number 3/			100.1			105.2

scheduled for publication in the September 1966 issue of Bureau of the Census Report FT 410. 3/ The index numbers are of "Fisher's Ideal" type. 4/ Fresh, chilled or frozen. 5/ Wool unit values are derived from all wool imports. 1/ Unit values were computed from the value and quantity figures published in Foreign Agricultural Trade of the United States. Cotton poundages were obtained from U.S. Bureau of the Census Reports, Supplement to EM 522. 2/ On advice of the Bureau of the Census, \$5 million were deducted from the export value figures from which the unit values were computed; this correction is

(2) Reuter's excludes and Dow-Jones includes hide prices -- which were at high levels during the year ended September 30, 1966; (3) Reuter's includes several nonagricultural commodities with an aggregate weight of 19 percent, whereas the Dow-Jones price index is made up of agricultural commodities only; and (4) Reuter's is based upon prices of commodities delivered or "c.i.f." (cost, insurance, and freight), United Kingdom -- it thus reflects the decline in ocean freight rates that occurred in 1966. During the year ended September 1966, the index numbers of the U.K. general trip charters averaged 3.4 percent below a year earlier.

## U.S. Agricultural Export and Import Price Movements are Similar

The index of U.S. agricultural export prices and that of U.S. agricultural import prices differed very little from the aggregate index (table 4). For the year ended September 1966, the export price index was 0.2 percent above the preceding year and the import index was 0.1 percent below a year earlier.

Why, it may be asked, does the index of agricultural export prices reflect virtually no price change on the average, in contrast to the increases in the Index of Prices Received by Farmers and in the Dow-Jones Spot Price Index and in conformity with the stability in the Reuter's Index? Most of the explanations why Reuter's is lower than Dow-Jones do not apply to the prices of the leading U.S. agricultural trade commodities. The similarity of these two price indexes has another reason. Both are heavily weighted by crops. Live-stock products are of minor importance. The Index of Prices Received by Farmers for Crops dropped 0.7 percent during the year ended in September 1966. It was thus approximately in line with the 0.2 percent increase in the average price of leading U.S. agricultural exports. While livestock and livestock products account for much over one-half of U.S. farm sales, they are of much lesser relative importance in the U.S. agricultural export trade. The 15.8 percent rise in the Index of Prices Received by Farmers for Livestock and Livestock Products finds little reflection in the export price index.

The discrepancy between the stability in the agricultural export price level and the rise in the Dow-Jones Index remains to be explained. The Dow-Jones Spot Price Index, although generally useful as a measure of price changes in agricultural commodities and in foreign agricultural trade, accords a relatively heavy weight to oats and rye. The prices of these two minor commodities rose markedly in 1966 and affected the Dow-Jones Index.

Eleven of the 12 commodities which are included in the export price index displayed relatively narrow price movements during the year ended in September 1966 compared with a year earlier. The price changes of these 11 commodities ranged from 4.6 and 4.5 percent declines in the prices of cotton and inedible tallow, respectively, to a 7.2 percent increase in the price of flue-cured tobacco. Soybean oil and protein meal prices increased by 5.9 and 5.3 percent, respectively. The prices of the six other commodities of the eleven ranged still more narrowly from a 2.0 percent decline for wheat to a 2.8 percent increase in milled rice. Only nonfat dry milk experienced a sharp price increase of 26.6 percent; only 77 million pounds were exported, little more than one-fourth of the quantity exported during the preceding year.

The nine commodity price relatives which make up the import index ranged from 89.4 to 114.5 percent of the preceding year, a narrower range than that for the export price relatives. The two meat items in the import price index, (1) hams and (2) beef and veal, rose over 14 percent in price. Sugar, banana, and tobacco prices rose 4.2 to 4.5 percent, while rubber, wool, and coffee prices declined 3.7 to 4.6 percent. The price of cocoa beans was still depressed for the year as a whole, averaging 89.4 percent of the preceding year. That average, equal to 17.0 cents per pound, masks a price recovery from 12.6 cents per pound during October-December 1965 to 21.2 cents during July-September 1966.

July-September quarterly indexes exhibit the same uniformity in the price movement of export and import commodities which characterizes the annual indexes. However, instead of the stability shown by the annual indexes, the quarterly indexes show a 5.2 percent overall increase in the price level of leading U.S. agricultural trade commodities, with a 5.0 percent increase in export commodities and a 5.6 percent increase in import commodities.

The export index is influenced by respective increases of 15.4, 12.5, and 9.0 percent in the prices of protein meal, soybeans, and soybean oil -- reflecting strong demand and dwindling stocks during the last quarter of the soybean marketing year. Strong demand and dwindling stocks also explain the 7.1 percent rise in the price of wheat. On the other extreme, the cotton price was down 8.8 percent, reflecting the new cotton legislation. The inedible tallow price was similarly down by 7.9 percent. The other six export commodities showed price increases ranging from 2.2 to 6.8 percent.

On the import side, the sharpest increase -- 52.5 percent -- was in the price of cocoa beans, which returned to a more normal level of 21.2 cents per pound. Meats (beef and veal as well as ham) experienced slightly higher price increases than during the year as a whole. Changes in the other six commodity prices ranged from a 1.0 percent decline for tobacco to a 7.9 percent rise for rubber.

Prices, price relatives, and indexes are also shown for the year and quarter ended in June 1966 (table 5). The annual export and import indexes are more apart than those for the year ended in September 1966. The overall index number was 98.4 with export prices at 99.6 -- showing virtually no change -- and import prices at 96.5. Export prices changed within a narrow range, from -6.1 percent for wheat to +4.9 percent for tobacco, except for a 37.6 percent increase in the price of nonfat dry milk and a 9.4 percent increase in the price of soybean oil. The import index was pulled down by a 25 percent drop in the cocoa bean price.

Export and import indexes for the quarter ended in June 1966 were of similar magnitude, 102.2 and 103.1 percent, respectively, of a year earlier with an overall index of 102.5.

Terms of Trade in Balance.--Indexes of terms of trade are obtained as quotients of export and import price indexes. All three previous reports in this series 3/

<sup>3/</sup> See Foreign Agricultural Trade of the United States, January-February 1966, March-April 1966, and September 1966.

Table 5.--Unit values of 21 leading U.S. agricultural trade commodities, years and quarters ended June 30, 1966 and 1965  $\underline{1}/$ 

						- 1
• •		Year ended June	30	; Quarter	r ended June	le 30
Commodity	1966	1965	1966	1966	1965	1966 1965
	: Cents	Cents	Percent	Cents	Cents	Percent
	••			•••		
es	,	1	0	(		(
	1.201 :	1/2./	73.9	: 162.8	161.9	100.6
Wheat flour	: 401.8	407.0	7.86	: 397.7	387.1	102.7
CornBu.	: 138.9	139.5	9°66	: 139.4	134.4	103.7
Sorghum grainBu.	: 120.9	122.0	99.1	: 122.5	123.4	99°3
SoybeansBu.	: 286.2	286.6	6°66	317.0	305.9	103.6
Soybean oilLb.	: 13.9	12.7	109,4	: 15.3	14.4	106.2
Protein mealLb.	3.9	3,8	102.6	: 4.0	3,8	105.3
Cotton	: 25.4	26.2	6°96	: 25.2	25.7	98.1
	87.9	83.8	104.9	: 85.1	80.9	105.2
Rice, milled	: 7.3	7.1	102,8	. 7.3	7.2	101,4
Tallow, inedibleb.	9.8	8.4	102.4	. 8.6	9.3	92.5
Nonfat, dry milkLb.	: 15.0	10.9	137.6	: 16.3	12.9	126,4
						,
Average, i.e., index number $2/\ldots$	0.0		9.66			102.2
Im ort commodities :				••		
	: 37.2	0.04	93.0	: 37.1	37.6	98°7
	5.8	5.7	101.8	0.9	5.8	103,4
, chilled, or frozen	: 36.2	32.7	110.7	: 40.1	33.0	121.5
	: 17.8	19,2	92.7	: 18.7	19.1	6.76
Wool $\frac{3}{4}$	: 59.2	65.0	91.1	: 59.5	60.7	0.86
Cocoa beans	: 14.3	19,1	74.9	: 16.8	15.6	107.7
Tobacco	: 72.2	68.2	105.9	: 72.2	70.7	102,1
Bananas	8.4.	9* 7	104.3	8.4	9.4	104.3
HamsLb.	: 72.7	65.5	111.0	: 76.9	65.3	117.8
						1
Average, i.e., index number $\frac{2}{}$			96.5			103.1
				••		
All above commodities Average, i.e., index number 2/	••••		7.86	••••		102.5
	0					

1/ Unit values were computed from the value and quantity figures published in Foreign Agricultural Trade of the United States. Cotton poundages were obtained from U.S. Bureau of the Gensus Reports, Supplement to EM 522.

 $\frac{2}{3}$  The index numbers are of "Fisher's Ideal" type.  $\frac{3}{4}$  Wool unit values are derived from all wool imports.

showed favorable terms of trade for U.S. agricultural exports. For the year ended in September 1966, the terms of trade were essentially in balance -- amounting to 100.3. For the year ended in June 1966, the terms of trade were 103.2, the same as the magnitude for the year ended in March 1966. Quarterly terms of trade were slightly less than 100 -- 99.4 for the quarter ended in September 1966 and 99.1 for the quarter ended in June 1966.

Summary and Outlook.--For the year ended September 1966, export and import price indexes for leading U.S. agricultural commodities amounted to 100.2 and 99.9 percent of the preceding year. The overall index, export and import commodity prices combined, was 100.1. Similar stability was observed in the agricultural export price index based on United Nations data, in the U.S. Index of Prices Received by Farmers for Crops, and Reuter's Index. The prices of meats (hams as well as beef and veal) increased most among import commodities and the nonfat dry milk price increased most among export commodities. The terms of trade (export price indexes divided by import price indexes), previously favorable to U.S. agricultural exports, amounted to 100.3 and were thus virtually in balance.

During the October-December 1966 quarter, the Reuter's Index averaged considerably below its level any time since 1963 and the Dow-Jones Spot Price Index was below its level any time in 1966 and at the approximate October-December 1965 level. To the extent to which these two indexes are indicative of agricultural trade prices -- and in the past they have been generally useful in this respect -- the calendar year and fourth-quarter price indexes for U.S. agricultural trade are likely to show either some price decline or stability but no significant increases.



